

Amendments to the Claims

This listing of the claims will replace all prior versions, and listings, of claims in this application.

Listing of Claims:

1-58. **Canceled.**

59. **(New)** A method of diagnosing Hepatitis C virus (HCV) infection, comprising contacting a biological sample from a subject with an antibody or antigen binding portion thereof that specifically binds to a polypeptide comprising an amino acid sequence of at least 8 amino acids in length which amino acid sequence is encoded by an HCV nucleic acid molecule comprising a nucleotide sequence corresponding to SEQ ID NO:1 and translated in a reading frame corresponding to the reading frame of SEQ ID NO:1 and +1 to the standard HCV reading frame, under conditions where the polypeptide and the antibody or antigen binding portion thereof can bind, determining the presence or absence of the polypeptide, wherein presence of the polypeptide indicates infection with HCV.

60. **(New)** The method of claim 59, wherein the amino acid sequence is at least 14 amino acids in length.

61. **(New)** The method of claim 59, wherein the amino acid sequence is at least at least 30 amino acids in length.

62. **(New)** The method of claim 59, wherein the amino acid sequence is at least 100 amino acids in length.

63. **(New)** The method of claim 59, wherein the entire polypeptide is encoded by a reading frame +1 to the standard hepatitis C reading frame.

64. **(New)** The method of claim 59, wherein the amino acid sequence comprises at least 8 contiguous amino acids of SEQ ID NO:2.

65. (New) The method of claim 59, wherein the amino acid sequence is identical to the amino acid sequence shown in SEQ ID NO:2.
66. (New) The method of claim 59, wherein the amino acid sequence comprises at least 8 contiguous amino acids of SEQ ID NO:9.
67. (New) The method of claim 59, wherein the amino acid sequence is selected from the group consisting of: SEQ ID NO: 3, SEQ ID NO:4, SEQ ID NO:5, and SEQ ID NO:6.
68. (New) The method of claim 59, wherein the amino acid sequence is selected from the group consisting of: LNLKEKP(X1)(X2)TPT(X3) (SEQ ID NO:3) and AAHRT(X4)SSR(X5)(X6)VR (SEQ ID NO:4) , wherein X1 is N or K, X2 is V or E, X3 is A or V, X4 is L or S, X5 is A or V, and X6 is A or V.
69. (New) The method of claim 59, wherein the amino acid sequence is selected from the group consisting of: LNLKEKPNVTPTA (SEQ ID NO:5) and AAHRTSSSRVVR (SEQ ID NO:6).
70. (New) The method of claim 59, wherein the antibody or antigen binding portion thereof is polyclonal.
71. (New) The method of claim 59, wherein the antibody or antigen binding portion thereof is monoclonal.
72. (New) The method of claim 59, wherein the antibody or antigen binding portion thereof is detectably labeled.
73. (New) The method of claim 59, wherein the binding of the antibody or antigen binding portion thereof and the polypeptide is detected with a secondary antibody or binding portion thereof.

74. (New) The method of claim 59, wherein translation of the polypeptide begins at the initiation site of the standard HCF open reading frame with a shift into the +1 reading frame.
75. (New) The method of claim 59, wherein the antibody or antigen binding portion thereof is supplied in a kit.
76. (New) A method of diagnosing Hepatitis C virus (HCV) infection, comprising contacting a biological sample from a subject with an antibody or antigen binding portion thereof that specifically binds to a polypeptide comprising an amino acid sequence of at least 8 amino acids in length which amino acid sequence is encoded by a nucleic acid molecule comprising a nucleotide sequence shown in SEQ ID NO:1 and translated in a reading frame +1 to the standard HCV reading frame under conditions where the polypeptide and the antibody or antigen binding portion thereof can bind, determining the presence or absence of the polypeptide, wherein presence of the polypeptide indicates infection with HCV.
77. (New) The method of claim 76, wherein the amino acid sequence is at least 14 amino acids in length.
78. (New) The method of claim 76, wherein the amino acid sequence is at least at least 30 amino acids in length.
79. (New) The method of claim 76, wherein the amino acid sequence is at least 100 amino acids in length.
80. (New) The method of claim 76, wherein the entire polypeptide is encoded by a reading frame +1 to the standard hepatitis C reading frame.
81. (New) The method of claim 76, wherein the amino acid sequence comprises at least 8 contiguous amino acids of SEQ ID NO:2.
82. (New) The method of claim 76, wherein the amino acid sequence is identical to the amino acid sequence shown in SEQ ID NO:2.

83. (New) The method of claim 76, wherein the amino acid sequence comprises at least 8 contiguous amino acids of SEQ ID NO:9.
84. (New) The method of claim 76, wherein the amino acid sequence is selected from the group consisting of: SEQ ID NO: 3, SEQ ID NO:4, SEQ ID NO:5, and SEQ ID NO:6.
85. (New) The method of claim 76, wherein the amino acid sequence is selected from the group consisting of: LNLKEKP(X1)(X2)TPT(X3) (SEQ ID NO:3) and AAHRT(X4)SSR(X5)(X6)VR (SEQ ID NO:4) , wherein X1 is N or K, X2 is V or E, X3 is A or V, X4 is L or S, X5 is A or V, and X6 is A or V.
86. (New) The method of claim 76, wherein the amino acid sequence is selected from the group consisting of: LNLKEKPNVTPTA (SEQ ID NO:5) and AAHRTSSSRVVR (SEQ ID NO:6).
87. (New) The method of claim 76, wherein the antibody or antigen binding portion thereof is polyclonal.
88. (New) The method of claim 76, wherein the antibody or antigen binding portion thereof is monoclonal.
89. (New) The method of claim 76, wherein the antibody or antigen binding portion thereof is detectably labeled.
90. (New) The method of claim 76, wherein the binding of the antibody or antigen binding portion thereof and the polypeptide is detected with a secondary antibody or antigen binding portion thereof.
91. (New) The method of claim 76, wherein translation of the polypeptide begins at the initiation site of the standard HCF open reading frame with a shift into the +1 reading frame.

92. (New) The method of claim 76, wherein the antibody or antigen binding portion thereof is supplied in a kit.